

Claims

1. A rotor for an electrical machine, including a rotor shaft (2), a hollow-cylindrical magnet element (3), and a covering disk (5, 6), wherein the covering disk (5, 6) is secured to the rotor shaft (2), and the magnet element (3) is secured to a first axial end (3a) of the covering disk (5, 6).
2. The rotor for an electrical machine as recited in claim 1, characterized in that a second axial end (3b) of the magnet element (3) rests on a shaft shoulder (2a) of the rotor shaft (2).
3. The rotor for an electrical machine as recited in claim 1, including a first covering disk (5) and a second covering disk (6), wherein the first and second covering disks (5, 6) are secured to the rotor shaft (2), and the magnet element (3) is secured on its first axial end (3a) to the first covering disk (5) and on its second axial end (3b) to the second covering disk (6).
4. The rotor for an electrical machine as recited in one of the foregoing claims, characterized in that the magnet element (3) is secured to the covering disks (5, 6) by means of an adhesive.

5. The rotor for an electrical machine as recited in one of the foregoing claims, characterized in that the covering disks (5, 6) each have at least one radially extending slit (8, 9).

6. The rotor for an electrical machine as recited in one of the foregoing claims, characterized in that the covering disks (5, 6) have many radially extending slits (8, 9) of different lengths.

7. The rotor for an electrical machine as recited in claim 6, characterized in that the covering disks (5, 6) have radial slits (8) with a first length (A) and radial slits (9) with a second length (B), and the first length (A) is greater than the second length (B).

8. The rotor for an electrical machine as recited in one of the foregoing claims, characterized in that the covering disks (5, 6) have a yielding region (7).

9. The rotor for an electrical machine as recited in claim 8, characterized in that the yielding region (7) is furnished by means of a bead extending in the circumferential direction.

10. The rotor for an electrical machine as recited in claim 8, characterized in that the yielding region of the covering disks (5, 6) is furnished by a region (13) that is substantially U-shaped in section.

11. The rotor for an electrical machine as recited in claim 8, characterized in that the yielding region is embodied as a connecting region (15), disposed between a securing region (11) and a retention region (14) for the magnet element, and the connecting region (15) is inclined to the securing region by an angle (α).
12. The rotor for an electrical machine as recited in one of claims 8 through 11, characterized in that the covering disks (5, 6) have at least one slit with a length that extends from the outer circumference of the covering disk to the yielding region (7).
13. The rotor for an electrical machine as recited in one of the foregoing claims, characterized in that inside the magnet element (3), a carrier body (4) is disposed, which is spaced apart from the magnet element (3) in the radial direction and is spaced apart from the securing disks (5, 6) in the axial direction.
14. The rotor for an electrical machine as recited in one of the foregoing claims, characterized by a cylindrical guard tube (10), which surrounds the magnet element (3).
15. An electrical machine, including a rotor as recited in one of the foregoing claims.